# Metadata for Wupatki National Monument, Field Plots Data Base for Vegetation Mapping

Identification\_Information:

Citation:

Citation Information:

Originator: Kathryn Thomas, Monica Hansen (comp.)

Publication\_Date: 2004

Title: Field Releve Plots: Wupatki National Monument Vegetation Mapping Project

Geospatial Data Presentation Form: vector digital data

Online\_Linkage: http://biology.usgs.gov/npsveg/wupa/fielddata.html

Larger\_Work\_Citation: Citation Information:

Originator: M. Hansen, J. Coles, K.A. Thomas, D. Cogan, M. Reid, J. Von Loh, K. Schultz

Publication Date: 2004.

Title: USGS-NPS National Vegetation Mapping Program: Wupatki National Monument, Arizona, Vegetation

Classification and Distribution, Final Project Report

Geospatial\_Data\_Presentation\_Form: report

Description:

Abstract: This spatial dataset in ESRI Coverage format maps field releve plot locations for the vegetation classification and descriptions of the vegetation map at Wupatki National Monument and in the surrounding environs as part of the National Vegetation Mapping Program.

Purpose: This data set was developed to locate the field points used for classification and description of vegetation types for NVCS associations and map labels used to develop the vegetation map at Wupatki National Monument and the surrounding environs.

Time Period of Content:

Time\_Period\_Information: Range\_of\_Dates/Times: Beginning\_Date: 199906 Ending\_Date: 199908

Currentness\_Reference: ground condition

Status:

Progress: Complete

Maintenance\_and\_Update\_Frequency: None planned.

Spatial\_Domain:

Description\_of\_Geographic\_Extent: Wupatki National Monument and the environs.

Bounding Coordinates:

West\_Bounding\_Coordinate: -111.554507 East\_Bounding\_Coordinate: -111.266403 North\_Bounding\_Coordinate: 35.631018 South\_Bounding\_Coordinate: 35.495543

Keywords:

Theme:

Theme\_Keyword\_Thesaurus: none Theme\_Keyword: Vegetation Theme\_Keyword: Releve Theme\_Keyword: Field Plots

Place:

Place\_Keyword\_Thesaurus: none Place\_Keyword: North America Place\_Keyword: United States

Place\_Keyword: Southwestern United States

Place\_Keyword: Arizona

Place Keyword: Coconino County

Place\_Keyword: Wupatki National Monument

Access\_Constraints: Data are available after research results have been published.

Use\_Constraints: This data was compiled for government use and represent the results of data collection/processing for a specific USGS/BRD activity/project. The USGS/BRD makes no representation as to the suitability or accuracy of this data for any other purpose and disclaims any liability for errors that the data may contain. As such, it is only valid for its intended use, content, time, and accuracy specifications. While there are no explicit constraints on the use of this data, please exercise appropriate and professional judgment in the use and interpretation of this data. Acknowledgement of the originating agencies would be appreciated in products derived from this data.

Point of Contact:

Contact Information:

Contact Person Primary:

Contact Person: Kathryn A. Thomas

Contact Organization: USGS-SBSC-Colorado Plateau Research Station

Contact Position: Project Leader, Vegetation Scientist

Contact Address:

Address Type: mailing and physical address

Address: U.S. Geological Survey, Southwest Biological Science Center, Colorado Plateau Research Center, 2255

N. Gemini Drive, Building 4

City: Flagstaff

State\_or\_Province: Arizona Postal\_Code: 86001 Country: USA

Contact\_Voice\_Telephone: 928-556-7327 Contact\_Facsimile\_Telephone: 928-556-7500

Contact\_Electronic\_Mail\_Address: Kathryn\_A\_Thomas@usgs.gov

Hours\_of\_Service: 8:00am to 5:00pm (Arizona time), Monday through Friday

Contact Instructions: E-mail

Browse\_Graphic:

Browse\_Graphic\_File\_Name: http://biology.usgs.gov/npsveg/wupa/images/wupaplot.jpg

Browse\_Graphic\_File\_Description: 655 kbyte file showing vegetation associations and locations of vegetation plot

samples

Browse\_Graphic\_File\_Type: JPG

Native\_Data\_Set\_Environment: Microsoft Windows 2000 Version 5.0 (Build 2195) Service Pack 4; ESRI ArcCatalog 8.2.0.700

Cross Reference:

Citation\_Information:

Originator: Kathryn Thomas, U.S. Geological Survey, Southwest Biological Science Center, Colorado Plateau Research Station, Monica Hansen, U.S. Geological Survey, Southwest Biological Science Center, Colorado Plateau Research Station, Janet Coles, Bureau of Reclamation, Remote Sensing and Geographic Information Group, Dan Cogan, Bureau of Reclamation, Remote Sensing and Geographic Information Group

Publication\_Date: 2004

Title: USGS-NPS Vegetation Mapping Program: Wupatki National Park, Arizona, Vegetation Classification and Distribution. Technical Report FY 2004.

Edition: USGS Biological Resources Division Technical Report

Geospatial\_Data\_Presentation\_Form: report

Taxonomy:

Keywords/Taxon:

Taxonomic\_Keyword\_Thesaurus: None Taxonomic\_Keywords: plant communities

Taxonomic\_Classification:
Taxon\_Rank\_Name: Kingdom
Taxon\_Rank\_Value: Plantae

Data\_Quality\_Information:

Attribute Accuracy:

Attribute\_Accuracy\_Report: Dataset was quality checked in a spatial environment and through reviewing data entry. Logical\_Consistency\_Report: was quality checked by visually inspecting the dataset in a geographic information system (GIS).

Completeness\_Report: Data collection is complete with no exclusions

Positional Accuracy:

Horizontal\_Positional\_Accuracy:

Horizontal\_Positional\_Accuracy\_Report: Visual inspection was preformed on the dataset to ensure accuracy of all sampling locations

Lineage:

Process Step:

Process Description: Two CPRS plant ecologists conducted field surveys from mid-June thru mid-August 1999 and sampled 108 field plots in the project area. A gradsect sampling design was used to divide the park into 'environmental types' to stratify for field sampling. The gradsect was developed using terrain types and four aspect and elevation categories developed from a Digital Elevational Model (DEM). The result was 40 unique 'environmental types'. A total of over 100 potential plot locations were allocated based on the percent of the unique environmental types and were used to guide sampling. Within our environmental types we initially determined placement of plots based on road accessibility and land ownership access. Typically we measured 1,000m2 circular relevés; however, in areas of dense vegetation we would lower our plot size to 400m2. At the center of these releves we measured the UTMs via a GPS unit. Several environmental types were inaccessible due to extensive sharp lava beds causing high safety risks for the field crew. The implementation of laser binoculars, a new technology, was lent to the program from Karl Brown of the Center of Biological Informatics (CBI). The binoculars provide locality information in UTMs by targeting a location. The laser binoculars transfer information in UTMs by triangulation, using distance and azimuth of targeted locations in conjunction with the GPS Plugger system. Additional laser plots were completed in SUCR until all environmental types within the gradsect sampling area were completed. All releve plot codes and UTMS were results entered into a table in a Microsoft Access database. The Microsoft Access database table was then converted to a text file and formatted as an ArcInfo generate file. The points coverage was then created using ArcToolbox generate.

Source Used Citation Abbreviation: C:\DOCUME~1\hwn\LOCALS~1\Temp\xml82.tmp

Process\_Date: 1999 to 2003

Process\_Contact:
Contact\_Information:
Contact\_Person\_Primary:

Contact\_Person: Kathryn Thomas

Contact Organization: USGS-SBSC-Colorado Plateau Research Station

Contact\_Position: Project leader

Contact\_Address:

Address\_Type: mailing and physical address

Address: U.S. Geological Survey, Southwest Biological Science Center, Colorado Plateau Research Center,

2255 N. Gemini Drive

City: Flagstaff

State\_or\_Province: Arizona Postal\_Code: 86001 Country: USA

Contact\_Voice\_Telephone: 928-556-7327 Contact\_Facsimile\_Telephone: 928-556-7500

Contact\_Electronic\_Mail\_Address: Kathryn\_A\_Thomas@usgs.gov

Hours\_of\_Service: 8:00am to 5:00pm (Arizona time), Monday through Friday

Contact Instructions: E-mail

Spatial\_Data\_Organization\_Information:

Direct\_Spatial\_Reference\_Method: Vector

Point\_and\_Vector\_Object\_Information:

 $SDTS\_Terms\_Description:$ 

SDTS\_Point\_and\_Vector\_Object\_Type: Entity point

Point\_and\_Vector\_Object\_Count: 217 SDTS Terms Description: SDTS Point and Vector Object Type: Point Point\_and\_Vector\_Object\_Count: 4 Spatial Reference Information: Horizontal Coordinate System Definition: Planar: Grid Coordinate System: Grid\_Coordinate\_System\_Name: Universal Transverse Mercator Universal\_Transverse\_Mercator: UTM Zone Number: 12 Transverse Mercator: Scale Factor at Central Meridian: 0.999600 Longitude of Central Meridian: -111.000000 Latitude of Projection Origin: 0.000000 False Easting: 500000.000000 False Northing: 0.000000 Planar Coordinate Information: Planar\_Coordinate\_Encoding\_Method: coordinate pair Coordinate Representation: Abscissa Resolution: 0.000064 Ordinate\_Resolution: 0.000064 Planar Distance Units: meters Geodetic Model: Horizontal\_Datum\_Name: North American Datum of 1983 Ellipsoid Name: Geodetic Reference System 80 Semi-major Axis: 6378137.000000 Denominator\_of\_Flattening\_Ratio: 298.257222 Entity and Attribute Information: Detailed\_Description: Entity Type: Entity\_Type\_Label: wupa\_releve.pat Entity\_Type\_Definition: This is a listing of all releve plot locations within the Wupatki National Monument project Entity Type Definition Source: User defined Attribute: Attribute Label: FID Attribute Definition: Internal feature number. Attribute\_Definition\_Source: ESRI Attribute Domain Values: Unrepresentable\_Domain: Sequential unique whole numbers that are automatically generated. Attribute: Attribute Label: Shape Attribute Definition: Feature geometry. Attribute Definition Source: ESRI Attribute Domain Values: Unrepresentable Domain: Coordinates defining the features. Attribute: Attribute Label: AREA Attribute Definition: Area of feature in internal units squared. Attribute\_Definition\_Source: ESRI Attribute Domain Values: Unrepresentable\_Domain: Area is always zero for point coverages. Values are automatically generated. Attribute:

## **USGS-NPS Vegetation Mapping Program**

### **Wupatki National Monument**

Attribute Label: PERIMETER

Attribute Definition: Perimeter of feature in internal units.

Attribute\_Definition\_Source: ESRI

Attribute\_Domain\_Values:

Unrepresentable Domain: Perimeter is always zero for point coverages. Values are automatically generated.

#### Attribute:

Attribute\_Label: WUPA\_RELEVE#

Attribute Definition: Internal feature number.

Attribute Definition Source: ESRI

Attribute\_Domain\_Values:

Range\_Domain:

Range\_Domain\_Minimum: 1
Range\_Domain\_Maximum: 217
Attribute\_Units\_of\_Measure: number

Unrepresentable Domain: Sequential unique whole numbers that are automatically generated.

#### Attribute:

Attribute Label: WUPA RELEVE-ID

Attribute Definition: User-defined feature number.

Attribute Definition Source: ESRI

Attribute\_Domain\_Values:

Range Domain:

Range\_Domain\_Minimum: 1
Range\_Domain\_Maximum: 217
Attribute Units of Measure: number

#### Attribute:

Attribute Label: X-COORD

Attribute\_Definition: The geographical coordinates for UTM Easting (x-coordinate) collected at each accuracy assessment field point in NAD83 Zone12 using Garmin 45XL.

Attribute\_Definition\_Source: The Universal Transverse Mercator (UTM) Grid USGS Fact Sheet 077-01 (August 2001)( <a href="http://mac.usgs.gov/mac/isb/pubs/factsheets/fs07701.html">http://mac.usgs.gov/mac/isb/pubs/factsheets/fs07701.html</a>)

Attribute\_Domain\_Values:

Range\_Domain:

Range\_Domain\_Minimum: 449791 Range\_Domain\_Maximum: 475838 Attribute Units of Measure: meters

#### Attribute:

Attribute\_Label: Y-COORD

Attribute\_Definition: The geographical coordinates for UTM Northing (y-coordinate) collected at each accuracy assessment field point in NAD83 Zone12 using Garmin 45XL.

Attribute\_Definition\_Source: The Universal Transverse Mercator (UTM) Grid USGS Fact Sheet 077-01 (August 2001)( <a href="http://mac.usgs.gov/mac/isb/pubs/factsheets/fs07701.html">http://mac.usgs.gov/mac/isb/pubs/factsheets/fs07701.html</a>)

Attribute\_Domain\_Values:

Range\_Domain:

Range\_Domain\_Minimum: 3928140 Range\_Domain\_Maximum: 3943057 Attribute\_Units\_of\_Measure: meters

## Attribute:

Attribute\_Label: PLOT\_CODE

Attribute\_Definition: Plot releve code developed as a unique identifier for the center of each releve point.

Attribute Definition Source: User Defined

Attribute Domain Values:

Range Domain:

Range\_Domain\_Minimum: WU-001 Range\_Domain\_Maximum: WU-209 Attribute\_Units\_of\_Measure: number

Distribution\_Information:

Distributor:

Contact Information:

Contact Organization Primary:

Contact\_Organization: USGS-NPS Vegetation Mapping Program Coordinator

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Address\_Type: mailing and physical address

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Federal Center

City: Denver

State\_or\_Province: Colorado

Postal\_Code: 80225 Country: USA

Contact\_Voice\_Telephone: (303) 202-4220 Contact\_Facsimile\_Telephone: (303) 202-4219

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Resource Description: Downloadable Data

Distribution\_Liability: Although these data have been processed successfully on a computer system at the USGS-SBSC-Colorado Plateau Research Station, no warranty expressed or implied is made regarding the accuracy or utility of these data on any other system or for general or scientific purposes, nor shall the act of distribution constitute any warranty. This disclaimer applies both to individual use of these data and aggregate use with other data. It is strongly recommended that these data be directly acquired from a U.S. Geological Survey server, and not indirectly through other sources that may have changed the data in some way. Its is also strongly recommended that careful attention be paid to the contents of the metadata file associated with these data. The U.S. Geological Survey and the SBSC-Colorado Plateau Research Station shall not be held liable for improper or incorrect use of these data described and/or contained herein.

Standard Order Process:

Digital Form:

 $Digital\_Transfer\_Information:$ 

Format\_Name: HTML Digital\_Transfer\_Option:

Online\_Option:

Computer Contact Information:

Network\_Address:

Network\_Resource\_Name: http://biology.usgs.gov/npsveg/wupa/fielddata.html

Fees: none

Metadata\_Reference\_Information:
Metadata\_Date: 20040211

Metadata Review Date: 20050622

Metadata\_Contact:
Contact Information:

Contact\_Organization\_Primary:

Contact\_Organization: USGS-NPS Vegetation Mapping Program Coordinator

Contact\_Address:

Address\_Type: mailing and physical address

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Postal\_Code: 80225 Country: USA

Contact\_Voice\_Telephone: (303) 202-4220 Contact\_Facsimile\_Telephone: (303) 202-4219

Contact\_Electronic\_Mail\_Address: gs-b-npsveg@usgs.gov

Metadata\_Standard\_Name: Content Standard for Digital Geospatial Metadata, 1998, Part 1: Biological Data Profile,

1999 (FGDC-STD-001.1-1999) Metadata\_Standard\_Version: FGDC-STD-001-1999